

IN THE CLAIMS:

Amend claim 1 as indicated on the enclosed copy of claim 1 bearing the heading "AMENDED CLAIM"

A substitute page 32 comprising a clean copy of claim 1 as amended is enclosed.

REMARKS

In response to the December 7, 2001 Office Action, Applicants attorney telephoned the Examiner on December 18, 2001 concerning her possible failure to consider a Preliminary Amendment filed March 28, 2001 in the subject patent application. In a return telephone call Applicants attorney was advised that the Examiner had no record of the Preliminary Amendment and that a copy should be transmitted to her by FAX with proof of the March 28, 2001 filing. As indicated by the enclosed copy of the FAX Transmittal, Preliminary Amendment and post card bearing the filing date of March 28, 2001 for the Preliminary Amendment, the requested FAX was transmitted to the Examiner on December 19, 2001. No further communication having been received by Applicants from the USPTO relative to the Preliminary Amendment or modification of or extension of time to respond to the December 7, 2001 Office Action in view of the Preliminary Amendment, Applicants, by this Amendment have amended claim 1 to overcome its rejection under 35 USC 112 and 35 USC 102 and submit the following remarks supplemental to those set forth in the Preliminary.

Claim 1 as amended herein to overcome the rejection under 35 USC 112 is directed to a pipette tip mounting shaft **in**

combination with a pipette tip including substantially cylindrical and axially spaced inner surface regions defining an annular sealing region and an annular lateral support region **having predetermined inner diameters**. The structure of the pipette tip mounting shaft is defined as comprising a proximal end portion, a distal end portion, an annular sealing zone for mating with the annular sealing region of the tip and an annular lateral support zone having an outer diameter **slightly less than** the inner diameter of the lateral support region of the tip.

As noted in the Remarks accompanying the Preliminary Amendment, the mounting shaft as claimed is specifically structured to insure that there will be a single air-tight seal between the shaft and pipette tip thereby minimizing the mounting and ejection forces which must be generated by a pipette user in mounting and ejecting the pipette tip from the shaft. Also, the mounting shaft is specifically structured to provide separate lateral support for the pipette tip on the shaft without increasing the mounting and ejection forces which the pipette user must generate to mount the pipette tip on the shaft with an air-tight seal there between and to subsequently eject the tip from the shaft after use is complete. This is accomplished by dimensioning the mounting shaft in its lateral support zone so as to have an outer diameter that is slightly less than the inner diameter of the substantially cylindrical lateral support region on the inner surface of the pipette tip. This structure is intended to maintain a small friction free spacing between the lateral support zone and the lateral support region. However, when and if the pipette tip tilts on the mounting shaft, as during "touching off", the lateral support zone is sufficiently

close to the lateral support region as to provide lateral support for the tip on the shaft. This is to be distinguished from the teachings of Williams at column 7, lines 48-59 which inherently require a relatively high sliding friction contact between the alignment ring 274 protruding from the inner surface of the pipette tip 22A and the surface 279 on the mounting shaft to provide for continual alignment of the tip on the shaft. Williams therefore teaches away from the low mounting and ejection force design of the Applicants as defined in amended claim 1.

Accordingly, Applicants submit that claim 1 as amended meets the requirements of 35 USC 112 and is not anticipated by Williams under 35 USC 102. Therefore, favorable consideration of Applicants' amended claim 1 is earnestly solicited.

Respectively submitted,



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"AMENDED CLAIM"

CLAIM

1. In combination with [A pipette tip mounting shaft
5 designed to releasably receive and support] a pipette tip
including substantially cylindrical and axially spaced inner
surface regions defining an annular sealing region and an
annular lateral support region having predetermined inner
diameters, a [the] pipette tip mounting shaft comprising:

10 an axially elongated body for axially receiving the [such
a] pipette tip, the axially elongated body comprising

a proximal end portion for support by a pipette to
extend axially therefrom,

a distal end remote from the proximal end portion,

15 a substantially cylindrical outer surface region on
the axially extending body adjacent the distal end and defining
an annular sealing zone for mating with the annular sealing
region within the pipette tip, and

20 a substantially cylindrical outer surface region on
the axially elongated body axially spaced from the annular
sealing zone and defining an annular lateral support zone
having an outer diameter [equal to or] slightly less than the
inner diameter of the substantially cylindrical lateral support
region on the inner surface of the pipette tip.